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EXAMINER

WU, JINGGE

ART UNIT PAPER NUMBER

2623

DATE MAILED: 04/18/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/262,362

Applicant(s)
Kletter et al.

Examiner
Jingge Wu

Art Unit
2623



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb 13, 2002
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15, 17-20, 30-33, 36-38, 43, and 45-47 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15, 17-20, 30-33, 36-38, 43, and 45-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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Response to Amendment

1. Applicants' response to the last Office Action, filed Feb. 13, 2002 has been entered and made of record.
2. The rejection of claims 16 and 44 are rendered moot by applicant's cancellation of those claims.

Remarks

3. Applicant's arguments with respect to claims 15, 17-20, 30-33, 36-38, 43, and 45-47 have been fully considered, but they are not persuasive.

a. Applicant argues that claim language is patentable over Macleod because 1) "Since every pixel of the output image is a weighted average of foreground and back ground pixel, it follows that every output pixel is an arithmetic combination of the foreground and background pixels, there is no selection between pixels of a single plane and an arithmetic operation of pixels from more than on of said plural planes."; and 2) "*Macleod et al.* discloses two alternate embodiments. --- However, there is no single embodiment in *Macleod et al.* which teaches both "selecting pixels of the image" and "an arithmetic operation pixels from more than one of said plural planes" as required by the presently pending claims."

Examiner strongly disagrees. In the instant case, first, Applicant's argument is self-defeating and illogical. As quoted 1) above, Applicant seems to admit that Macleod teaches using "an arithmetic combination of the foreground and background pixels", and then Applicant asserts

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that “there is no selection between pixels of a single plane and an arithmetic operation of pixels from more than one of said plural planes.” The Examiner likes to point that if Applicant admits that Macleod teaches using “an arithmetic combination of the foreground and background pixels”, then follows must be true that 1) “the foreground and background pixels” must be selected from one of the planes in order to do “the arithmetic combination” 2) the “arithmetic combination” (arithmetic operation) must performed on the pixels from at least the foreground and background planes, i.e. plural planes. Thus, Applicant’s argument makes no sense and self-defeating. Second, there are no two alternative embodiments to decompress images as Applicant **wrongly** asserts. There is only one subtitled “decompression method” in col. 14, line 41. In addition, no language from Macleod, either explicitly and implicitly, support Applicant’s assertion. Furthermore, under the decompression method, Macleod discloses selecting pixels from foreground and background planes according to the selector plane, and creation of decompressed image (Fig. 25a, 2503 and 2504, col. 14, lines 53- 63). Moreover, Macleod discloses the details of the step 2504 how to create the decompressed image in Fig. 25b, i.e., arithmetically combining pixels selected from foreground and background planes. Therefore, Macleod discloses one decompression method which exactly reads on the broadly claimed language. Finally, since Macleod clearly teach all limitations in the claims 15, 30, 36, and 43, the rejection under 35 USC 102 is appropriate. There is no need for combination regarding those claims..

b. Applicant further argues that O’Mahony is not analogous art to the field of the present invention.

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Examiner strongly disagrees. Since O'Mahony is used for combining with Macleod, whether O'Mahony is a analogous art to the field of the **present invention** or not is not critically related to the rejection under 35 USC 103 as long as O'Mahony is in analogous environment of Macleod. However, O'Mahony is clearly analogous art to the present invention because they are both in image processing field, and more specifically, color image processing field, thus there is need for super-resolution selector plane for alpha blending. Therefore, It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the alpha value based on super-resolution of O'Mahony as value of the selector plane in the method of Macleod in order to achieve better selecting (for blending) capability with much less implement cost (O'Mahony, pages 4 and 5, second paragraph). By using the scheme of O'Mahony, the image derived from super-resolution the selector plane would have much more similar appearance to the original image since the alpha value of super-resolution would create more transparent (contrast) level corresponding to the pixels in the foreground and the background planes so that the quality and efficiency of the method is improved.

Claim Rejections - 35 U.S.C. § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who

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has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

5. Claims 15, 17-20, 30-32, 36-38, 43, and 45-47 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. patent 5778092 to Macleod et al. ("Macleod").

As to claim 15, Macleod discloses a method for reconstruction (decompression) of an image, comprising the steps of:

selecting pixels of the image to be reconstructed from plural planes of data representing the image (Fig. 25a and 25b, col. 14 line 42-col. 15 line 18), wherein said step of selecting comprises selecting pixels of image from one of a single plane (Fig. 25a, col. 14 lines 53-62) and an arithmetic operation of pixels from more than one of said plural planes (Fig. 25b, col. 15 lines 1-18).

As to claims 30 and 43, the claims are corresponding apparatus and computer readable media to claim 15. The discussions are addressed with regard to claim 15.

As to claim 17, Macleod further discloses the selecting step further comprising:

selecting pixels based on a selector plan that identifies, for each part of the original image, whether the original image information is maintained in an upper plane (background plane) or a combination of the upper and at least one lower plane (foreground plane) of said plural planes (Fig. 25a and 25b, col.14, lines 1-53, col. 15 lines 1-18).

As to claim 18, Macleod further discloses the step of decompressing said plural planes, from a compressed state (col. 14, lines 48-50).

As to claim 19, Macleod further discloses the selecting step comprising:

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combining said upper and lower decompressed planes to produce and additive image (col. 15, lines 1-18); and

selecting pixels of the reconstructed image from corresponding pixel locations of one of said decompressed upper plane and said additive image (col. 15, lines 1-18, col. 14 lines 42-62).

As to claim 20, Macleod further discloses the decompressing step includes the step of, decompressing a selector plane maintaining information identifying which pixels of each other decompressed plane are representative of pixels of the reconstructed image (col. 14 lines 42-63); and

said step of selecting comprises, selecting pixels for the reconstructed image based on the selector plane information (col. 14 lines 42-63).

As to claim 31, Macleod further discloses said selection device is further configured to weight an amount of said result derived from said upper plane based on a predetermined factor (Fig. 25b, col. 15, lines 1-18, col. 22, lines 4-12).

As to claim 32, Macleod further discloses the predetermined factor is a value of a selector plane that identifies how much of said result is derived from each of said upper and lower planes (Fig. 25b, col. 15, lines 1-18, col. 22, lines 4-12).

As to claim 36, Macleod discloses an apparatus for image constructing (decompressing), comprising:

means for reconstructing an image based on pixels selected from one of at least one of plural planes representing the image (Fig. 25b, col. 14, line 42-col. 15, line 18, col. 4 lines 33-53

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note that the means is inherently to conduct the reconstruction (decompression) operation) and an arithmetic operation of pixels from more than one of said plural planes (Fig. 25b, col. 15 lines 1-18).

As to claim 37, Macleod further discloses means for decompressing said plural planes and at least one selection mask (Fig. 22, selector plane) of the image to be reconstructed (col. 14 lines 48-50).

As to claim 38, Macleod further discloses means for reconstruction includes means for selecting pixels based on said at least on selector mask (col. 4 lines 43-53).

As to claims 45-47, the claims are the corresponding computer media and instructions (Fig. 26, col. 15 lines 21-57) claims to claims 17-19. All limitation are addressed with regard to claims 15-19.

Claim Rejections - 35 U.S.C. § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Macleod in view of WO 94/06111 to O'Mahony.

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As to claim 33, Macleod does not disclose the value of said selector plane is based on at least one of super-resolution and fine edge detail.

O'Mahony, in an analogous environment, discloses using the value of an alpha mask/plane which is super-resolution (multi-bit, non-binary) selector plane in corresponding locations of the image (Figs. 4, 8 and 10, page 8, second paragraph).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the alpha value based on super-resolution of O'Mahony as value of the selector plane in the method of Macleod in order to achieve better selecting (blending) capability with much less implement cost (O'Mahony, pages 4 and 5, second paragraph). By using the scheme of O'Mahony, the image derived from super-resolution the selector plane would have much more similar appearance to the original image since the alpha value of super-resolution would create more transparent (contrast) level corresponding to the pixels in the foreground and the background planes so that the quality and efficiency of the method is improved.

Conclusion

8. ***THIS ACTION IS MADE FINAL.*** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

9. Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (703) 308-9588. He can normally be reached Monday through Thursday from 8:00 am to 5:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (703) 306-0377.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amelia Au, can be reached at (703) 308-6604.

The Working Group Fax number is (703) 872-9314.

Jingge Wu

Patent Examiner

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April 12, 2002

**JINGGE WU
PATENT EXAMINER**

